

EXHIBIT 5



Ad Traffic Quality Resource Center

Overview Invalid Click Protection Advertisers Publishers

Google's Protection against Invalid Clicks

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Click Overview



How Advertisers are Protected

The Ad Traffic Quality Team helps protect advertisers against click fraud by working to isolate and filter out potentially invalid clicks before they ever reach your account reports. Although the intent of a click is difficult to determine with a high degree of scientific accuracy, we try to identify suspicious clicks as often as possible and to exclude additional clicks which we know will perform poorly for advertisers. By casting a wide net, we try to maximize the amount of invalid clicks that we exclude, which helps us to deliver consistent and high-quality traffic to advertisers.

Undoubtedly, some portion of the invalid click activity is not detected by our proactive systems and processes. However, we are able to effectively minimize that proportion through our proactive monitoring of both advertiser and publisher networks. Our belief in the quality of the sites in our network and the accuracy of our automated filtering is supported by the reactive investigations we undertake on behalf of advertisers who contact us with concerns. We have found through reactive manual reviews that our proactive monitoring misses only a fraction of all potential invalid click activity and our team continually works to improve this even further.

How we Help Protect Publishers

The relationship between Google, advertisers, and publishers is based on trust. As a result, Google treats any instance of invalid activity very seriously. In order to help protect advertisers and publishers from invalid click activity, Google carefully monitors all clicks and impressions on ads. With a clean network we preserve the advertisers' trust, which means better earnings for publishers with clean traffic.

We understand that sometimes a third party may generate invalid activity on your ads without your knowledge or permission. We know that these clicks are not the result of genuine interest in your products and services, and regularly work to improve our system to detect these clicks and filter them. Not only does this help protect publisher accounts from sabotage, it also ensures that advertisers are not charged for the filtered clicks.

However, [AdSense](#) publishers are ultimately responsible for all of the traffic to their ads. As a publisher, we recommend you follow our [policies](#) and diligently monitor your traffic to minimize invalid activity. We also encourage publishers to [report](#) any suspicious activity which they've detected on their site.

Detection of Invalid Clicks

The systems and processes that we use to detect and filter invalid clicks can be divided into three types:

Proactive

1. Filters

- Automated algorithms which filter out invalid clicks in real time, before they are charged to advertisers' accounts
- Analyze all clicks on AdWords ads

2. Offline analysis

- Automated algorithms and manual analysis
- Focuses on the AdSense network, but also includes Google sites and those in other networks

Reactive

3. Investigations

- Relatively rare
- All advertiser inquiries about invalid clicks are investigated by Google and taken very seriously
- The number of invalid clicks detected by investigations is negligible relative to the number

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| <ul style="list-style-type: none">• Automatically discard clicks and impressions from known sources of invalid activity• Account for vast majority of invalid click detection | <ul style="list-style-type: none">• Accounts for a much smaller proportion of invalid clicks than that detected by our automated filters | <p>detected by filters and offline analysis</p> |
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Proactive

Proactive detection happens before advertisers contact us. Our goal is to proactively detect as much invalid click activity as possible. Clicks that are deemed to be invalid by our online monitoring systems are discarded in real time and these discarded clicks are not charged to advertisers. In your AdWords account you [can see](#) how many invalid clicks have been proactively filtered from your traffic.

Reactive

When invalid activity is found through offline analysis and reactive investigation, we mark those clicks as invalid and issue credits to any advertisers affected by this activity. To protect advertisers from charges resulting from invalid clicks, we continually use the findings of our offline investigations to update our online monitoring systems, which means that sources that have been found to generate invalid clicks are proactively detected and filtered in the future.